

Inventor Search

Rooke 10/724,833

13/01/2005

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L17 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2004:486395 HCAPLUS  
DOCUMENT NUMBER: 141:42891  
TITLE: Artificial low-density lipoprotein carriers  
for transport of substances across the blood-brain  
barrier  
INVENTOR(S): Nelson, Thomas J.; Quattrone, Alessandro;  
Alkon, Daniel L.  
PATENT ASSIGNEE(S): Blanchette Rockefeller Neurosciences Institute, USA  
SOURCE: PCT Int. Appl., 41 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

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WO 2004050062	A2	20040617	WO 2003-IB5558	20031202
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004204354	A1	20041014	US 2003-724833	20031202
PRIORITY APPLN. INFO.:			US 2002-430476P	P 20021203

AB This invention relates to a highly efficient artificial low-density lipoprotein (LDL) carrier system for the targeted delivery therapeutic agents across the blood-brain barrier (BBB). In particular, this invention relates to artificial LDL particles comprised of three lipid elements: phosphatidyl choline, fatty-acyl-cholesterol esters, and at least one apolipoprotein. The present invention further relates to compns., methods and kits comprising artificial LDL particles for targeting drugs to and across the BBB for the prevention and treatment of brain diseases.

IC ICM A61K009-127  
ICS A61K031-704; A61K047-42; A61K047-28

CC 63-5 (Pharmaceuticals)

ST brain delivery LDL carrier apolipoprotein

IT Apolipoproteins

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);  
USES (Uses)

(B; low-d. lipoprotein carriers for transport of substances  
across blood-brain barrier)

IT Apolipoproteins

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);  
USES (Uses)

(E3; low-d. lipoprotein carriers for transport of substances  
across blood-brain barrier)

IT Apolipoproteins

RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(E4; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Apolipoproteins**  
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(E; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Drug delivery systems**  
(carriers; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Drug delivery systems**  
(liposomes; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Antibiotics**  
Antitumor agents  
Antiviral agents  
Blood-brain barrier  
Brain  
Fungicides  
Particle size  
Stability  
Transcytosis  
(low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Amino acids, biological studies**  
Antibodies and Immunoglobulins  
Carbohydrates, biological studies  
Enzymes, biological studies  
Growth factors, animal  
Lipids, biological studies  
Neurotransmitters  
Neurotrophic factors  
Peptides, biological studies  
Phosphatidylcholines, biological studies  
Proteins  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Lipoproteins**  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(low-d.; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT **Neurohormones**  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(neuromodulators; low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

IT 701261-26-9P 701261-27-0P  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(low-d. lipoprotein carriers for transport of substances

- across blood-brain barrier)  
IT 303-43-5, Cholesteryl oleate  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(low-d. lipoprotein carriers for transport of substances across blood-brain barrier)
- IT 57-88-5, Cholesterol, reactions 60-54-8, Tetracycline 85-44-9, Phthalic anhydride 771-61-9, Pentfluorophenol 1249-81-6, ThioCholesterol 25316-40-9, Adriamycin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(low-d. lipoprotein carriers for transport of substances across blood-brain barrier)
- IT 24951-79-9P, Cholesterol phthalate 701261-24-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(low-d. lipoprotein carriers for transport of substances across blood-brain barrier)

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FILE 'HCAPLUS' ENTERED AT 17:16:40 ON 13 JAN 2005  
L1 29816 SEA ABB=ON ?APOLIPOPROTEIN? OR ?APOE?  
L2 1399 SEA ABB=ON L1 AND (?DRUG? (W) ?DELIVER? OR ?CARRIER?)

FILE 'REGISTRY' ENTERED AT 17:17:56 ON 13 JAN 2005  
E PHOSPHATIDYLCHOLINE/CN

FILE 'HCAPLUS' ENTERED AT 17:18:13 ON 13 JAN 2005  
L3 197 SEA ABB=ON L2 AND (?PHOSPHATIDYLCHOLIN? OR ?PHOSPHOLIPID?)  
L4 3 SEA ABB=ON L3 AND ?LIPID? (W) ?CORE?

FILE 'REGISTRY' ENTERED AT 17:18:57 ON 13 JAN 2005  
E CHOLESTEROL/CN  
L5 1 SEA ABB=ON CHOLESTEROL/CN

FILE 'HCAPLUS' ENTERED AT 17:19:08 ON 13 JAN 2005  
L6 143 SEA ABB=ON L3 AND (L5 OR ?CHOLESTEROL?)  
L7 77 SEA ABB=ON L6 AND (?DRUG? OR ?PHARM? OR ?ANTIBIOTIC? OR  
?THERAP?)  
L8 0 SEA ABB=ON L7 AND ?ESTER? (W) ?BOND?  
L9 76 SEA ABB=ON L7 AND ?ESTER?  
L10 25 SEA ABB=ON L9 AND LDL  
L11 76 SEA ABB=ON L9 OR L10  
L12 67 SEA ABB=ON L11 AND (PRD<20021203 OR PD<20021203)  
L13 23 SEA ABB=ON L12 AND LDL *23 cites from CA Plus*

FILE 'MEDLINE, BIOSIS, EMBASE, JAPIO, JICST-EPLUS' ENTERED AT 17:21:45 ON  
13 JAN 2005

L14 9 SEA ABB=ON L13  
L15 9 DUP REMOV L14 (0 DUPLICATES REMOVED) *9 cites from other db's*